

AMENDMENT TO THE CLAIMS

Please amend the claims as follows.

This listing of claims will replace all prior versions and listings of claims in the application.

1. (previously amended) A method for enhancing delivery of  $\alpha_1$  antitrypsin to a respiratory cell in a subject, comprising the step of administering a nucleic acid molecule encoding  $\alpha_1$  antitrypsin to the subject, wherein a subject with a blood concentration of  $\alpha_1$  antitrypsin encoded by the nucleic acid displays an enhanced  $\alpha_1$  antitrypsin activity relative to a subject with a same blood level of  $\alpha_1$  antitrypsin administered as an exogenously-produced  $\alpha_1$  antitrypsin protein, thereby enhancing delivery of  $\alpha_1$  antitrypsin to a respiratory cell in the subject.

2-36. (canceled)

37. (previously amended) The method of claim 1, wherein the nucleic acid molecule encoding  $\alpha_1$  antitrypsin is associated with a positively charged liposome.

38. (canceled)

39. (previously amended) The method of claim 1, wherein the respiratory cell is a nasal mucosal cell or a lung epithelial cell.

40. (previously amended) The method of claim 1, wherein the  $\alpha_1$  antitrypsin is human  $\alpha_1$  antitrypsin.

41. (previously amended) The method of claim 1, wherein the nucleic acid molecule encoding  $\alpha_1$  antitrypsin is a DNA molecule in operable association with a promoter.

42-53. (canceled)

54. (previously added) The method of claim 1, wherein the subject has chronic obstructive pulmonary disease.

55. (withdrawn) A method for inhibiting production of IL-8 by a respiratory cell in a subject, comprising administering a nucleic acid molecule encoding  $\alpha_1$  antitrypsin to the subject, thereby inhibiting production of IL-8 by a respiratory cell in the subject.

56. (withdrawn) The method of claim 55, wherein the subject has chronic obstructive pulmonary disease.

57. (withdrawn) A method of treating chronic obstructive pulmonary disease in a subject, comprising administering a nucleic acid molecule encoding  $\alpha_1$  antitrypsin to the subject, thereby treating chronic obstructive pulmonary disease in the subject.

58. (newly added) A method for delivering  $\alpha_1$  antitrypsin to a respiratory cell in a subject, comprising the step of administering a nucleic acid molecule encoding  $\alpha_1$  antitrypsin to the subject, wherein the subject displays an enhanced blood concentration of  $\alpha_1$  antitrypsin encoded by the nucleic acid compared to a subject not exposed to the nucleic acid molecule encoding  $\alpha_1$  antitrypsin.

59. (newly added) The method of claim 1, wherein the subject shows a decrease in pulmonary vascular resistance (PVR.)